



**RICHLAND**  
**OPERATIONS OFFICE**  
United States Department of Energy

# **Richland Operations Office 2020 Vision**

***Doug S. Shoop, Manager***

**Hanford Advisory Board, Dec. 7, 2016**

**Safe, Secure and Compliant  
(Contractual, Regulatory and Compliance  
Agreement) Mission Accomplishment  
by an Engaged and Motivated  
Workforce**

**Funding profile = approximately \$900M/year**

# Richland Operations Office Vision

## Continuing Our Legacy of Success: Cleanup and Protection for the Future

**2016 - 2028**



### K Basin Sludge Transfer

- Complete transfer of K West Basin sludge to the Central Plateau



### Complete Remaining River Corridor Cleanup

- Complete dewatering, demolition and removal of K West Basin
- Complete the remainder of K Area facility D4 and waste site remediation
- Complete K Area Reactors Interim Safe Storage
- Complete 618-10 and 316-4 remediation
- Complete 300-296 waste site remediation and 324 Building D4
- Conduct any additional soil remediation required by the final CERCLA RODs
- Complete 618-11 remediation



### Complete Capsule Transfer from the WESF to Dry Storage

- Complete design and construction of a transfer and storage facility
- Transfer 1,936 cesium/strontium capsules (~100 million curies) to dry storage



### Complete Infrastructure Upgrades to Accomplish the Site Mission

- Upgrade critical site infrastructure
- Support startup of the Waste Treatment Plant and Tank Farm operations



### Expand Groundwater Cleanup

- Complete 300 Area uranium sequestration
- Conduct any additional groundwater remediation required by the final River Corridor CERCLA RODs
- Obtain 200 East CERCLA RODs
- Implement 200 East (BP-5/PO-1) remedies
- Implement additional remedies required by the 200 West UP-1 CERCLA ROD
- Conduct well decommissioning



### Retrieve, Treat, and Enable Shipping of Transuranic Waste to WIPP

- Retrieve and treat "contact-handled" TRU waste
- Retrieve and treat "remote-handled" TRU waste
- Develop and implement new TRU waste disposition capabilities
- Certify and ship TRU waste to WIPP
- Treat K Basin sludge



### Continue Cleanup of the Central Plateau

- Complete waste site characterization and treatability tests
- Complete RI/FS and obtain RODs
- Remediate waste sites
- Demolish facilities
- Conduct RCRA TSD closures



### Initiate Canyon Disposition

- Conduct demolition preparation and hazard reduction
- Complete canyon characterization (B Plant, PUREX, REDOX)
- Complete above grade demolition of U Plant canyon, remediate adjacent waste sites and install protective barrier



### Restore Hanford Land for Access and Use

- Manage and operate the Manhattan Project National Historical Park in partnership with the National Park Service
- Increase controlled Tribal and public access and use
- Protect cultural resources and restore natural resources
- Work closely with our partners to enable reuse of Hanford land consistent with the Comprehensive Land-Use Plan

## Mission:

*Protect the workers, public and environment by further risk reduction, provide necessary infrastructure for continued safe and effective cleanup operations, and restore Hanford lands for access and use.*



### Infrastructure and Facility Base Operations

- Operate key waste management facilities
- Maintain safe operations for Hanford nuclear and nonnuclear facilities
- Provide occupational medicine, laundry and other essential site-wide services
- Provide safeguards and security
- Maintain infrastructure



### Groundwater Base Operations

- Contain key contaminants and treat contaminated groundwater
- Maintain RCRA compliance
- Implement RCRA groundwater monitoring requirements



# River Corridor Project Completed (Green Capital Asset Project)

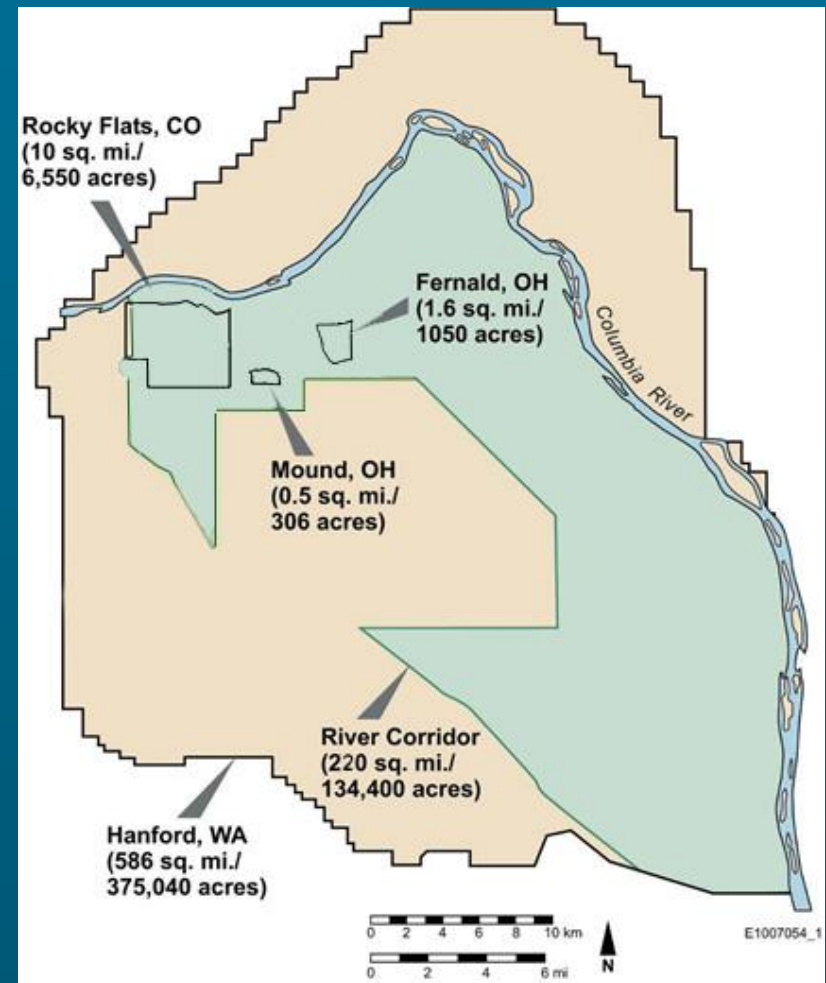
*September 2019 (CD 4) (requested in HAB Advice #288)*





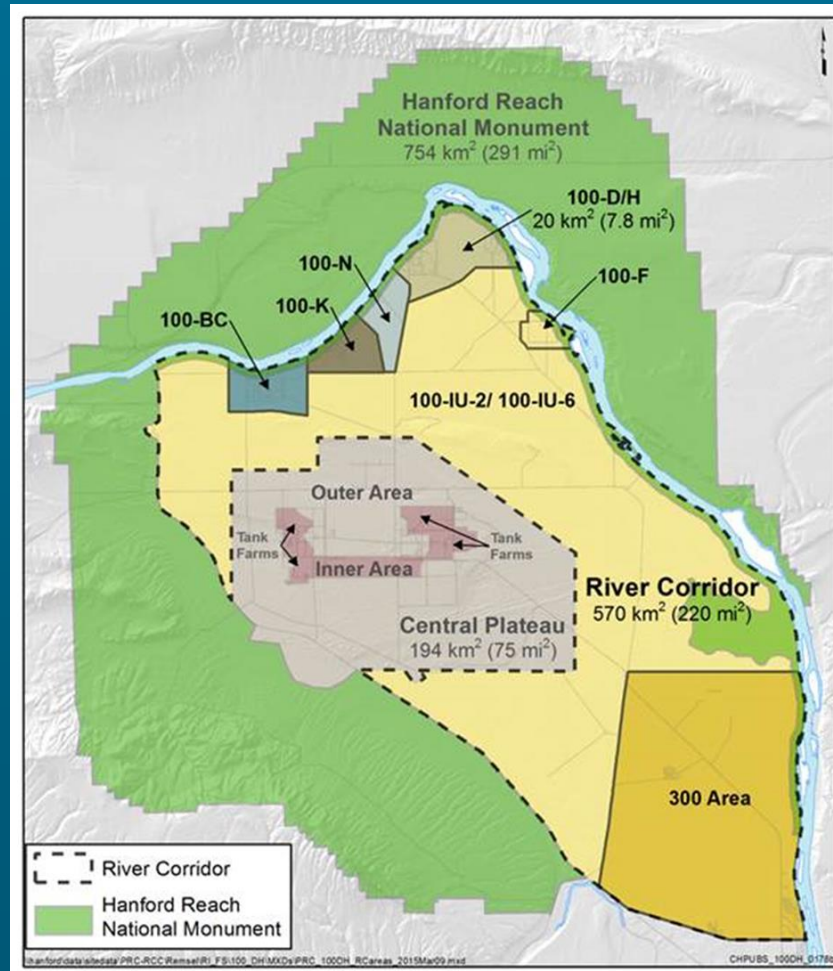
# River Corridor Cleanup Perspective

COMPARATIVES OF CLOSURE PROJECTS					
PROJECT	Size (sq. miles/acres)	# OF BUILDINGS AND STRUCTURES DEMOLISHED	# OF WASTE SITES	TYPES OF WASTE	TONS DISPOSED
HANFORD- River Corridor	220/134,400	586	814	plutonium, uranium, low-level waste, hazardous and low-level mixed waste, beryllium, asbestos,	WCH Total – 12,000,000 TONS
FERNALD	1.6/1,050	232	3 silos, 6 waste pits	low level radioactive, radium bearing waste, low level radioactive waste, contaminated soil, contaminated ground water, uranium	1,250,000 TONS
MOUND	.5/306	64 demolished, 9 transferred for re-use	73	transuranic, low-level radioactive, hazardous and low-level radioactive mixed with hazardous, contaminated soils and ground water	72,100 TONS
ROCKY FLATS	10/6,550	800	360	plutonium, uranium, low-level waste, hazardous and low-level mixed waste, beryllium, asbestos, americium and stainless steel	1,260,000 TONS



# All (6) River Corridor CERCLA RI/FS Records of Decision Completed and Approved

*December 2019*



# All (except K Area and 618-11) River Corridor Record of Decision Waste Site Remedial Actions Completed and All Groundwater Remedial Actions Implemented

*December 2019*





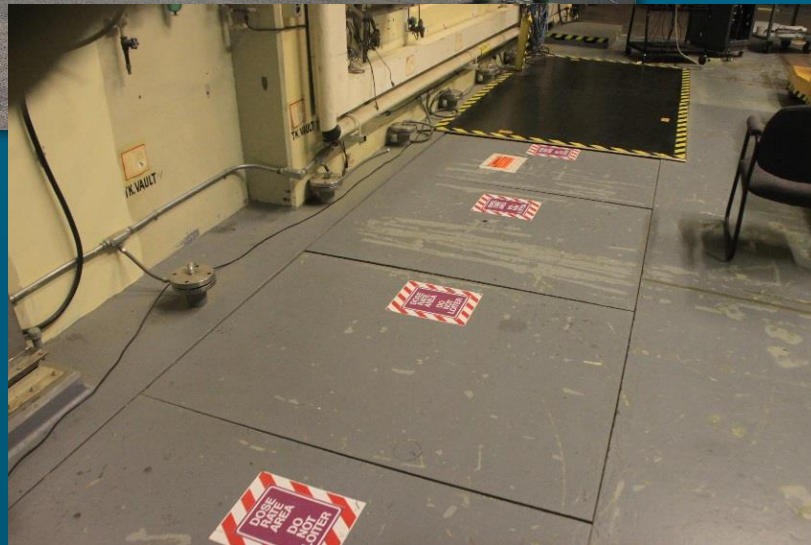
# River Corridor Orchard Land Remedial Investigation Report Completed

*August 2018*



# 300-296 Waste Site “Remote Excavation” Complete (TPA Milestone = September 2019) and 324 Building Demolition Initiated (TPA Milestone = September 2021 demolition complete)

*December 2019 (requested in HAB Advice #288)*





# 618-10 (and associated waste sites) Completed

*September 2018 (requested in HAB Advice #288)*





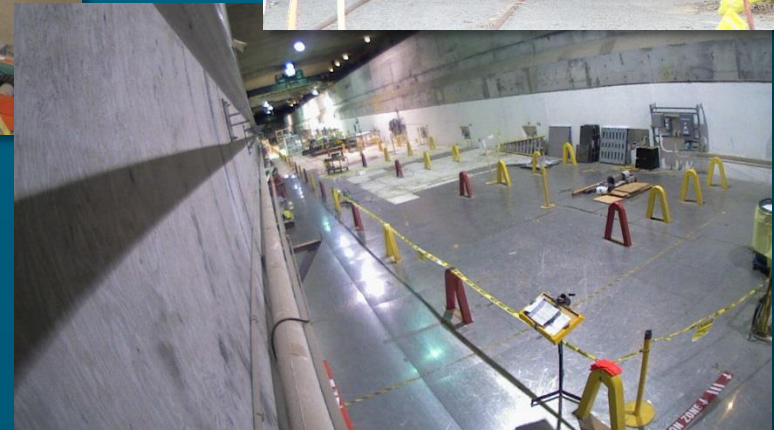
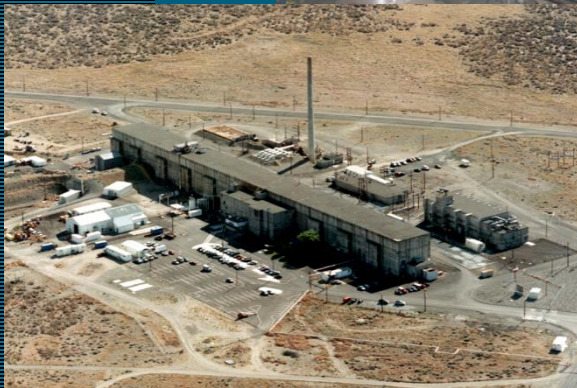
# K Area Sludge Removal Project Completed (Green Capital Asset Project)

*November 2019 (CD 4)  
(requested in HAB Advice #288)*



# K Area Sludge Transferred to T-plant for Storage and Eventual Treatment and Disposal

*December 2019 (requested in HAB Advice #288)*





# K Area Cleanup Required by CERCLA Final Record of Decision and TPA Milestones Initiated

*December 2019*

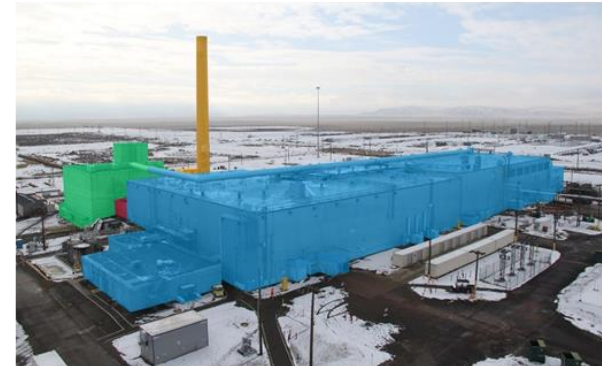
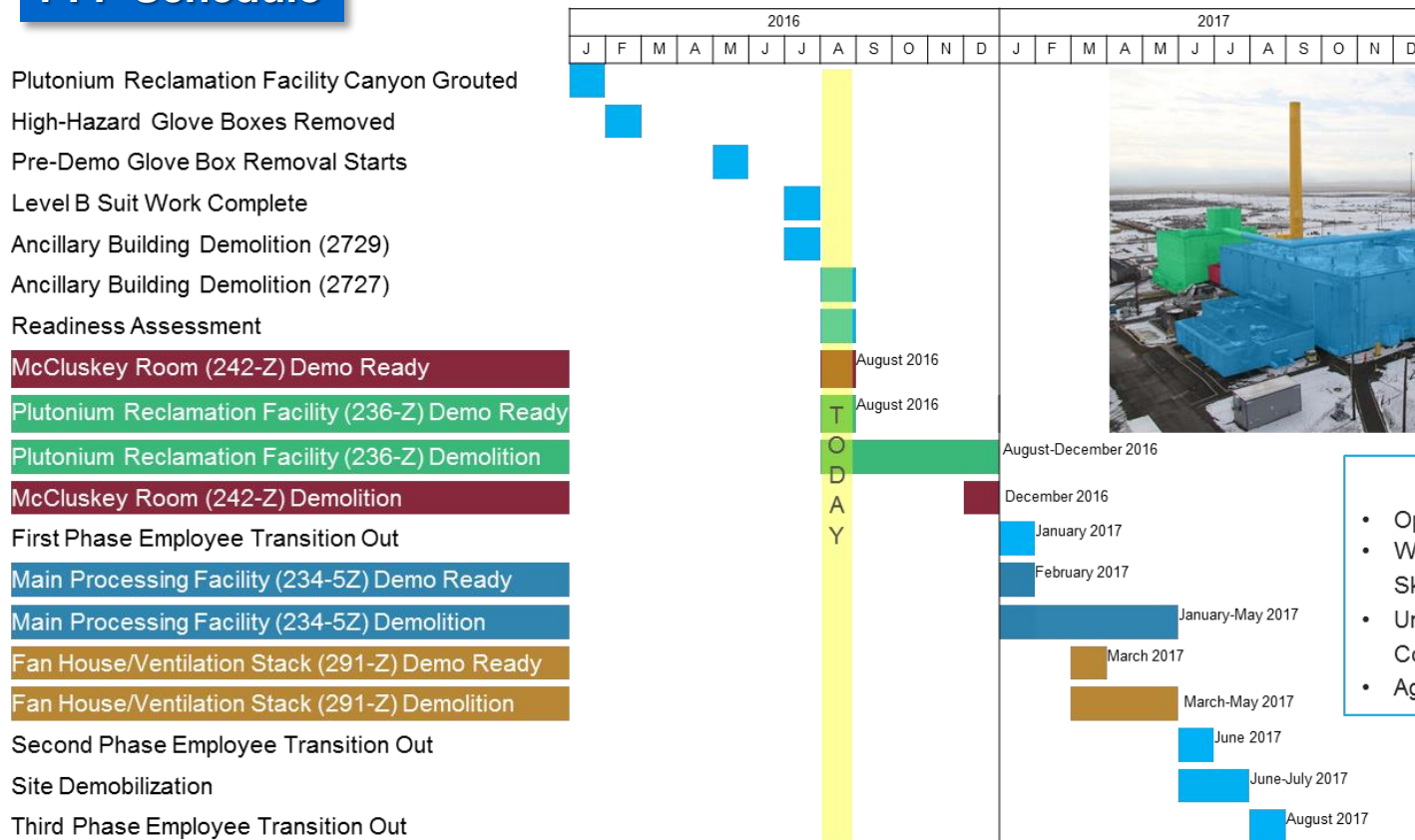




# PFP Slab on Grade Completed (Green Capital Asset Project)

**September 2017 (TPA) - August 2018 (CD 4)  
(requested in HAB Advice #288)**

## PFP Schedule



### Challenges

- Open Air Demo Concerns
- Workforce Transition and Skills Mix
- Unexpected Contamination Discovery
- Aging Infrastructure

# Cesium/Strontium Capsules Capital Asset Project CD-3 (Green), Storage Cask Fabrication, Construction of the Capsule Storage Area and WESF Modifications Initiated

*December 2019  
(requested in HAB Advice #288)*





# All Central Plateau Groundwater Interim and Final CERCLA Records of Decision Issued, Remedies Selected, and Treatment Capacity Increased to 1.3 Billion Gallons a Year for 200 East and 200 West Areas

*December 2019 (requested in HAB Advice #288)*





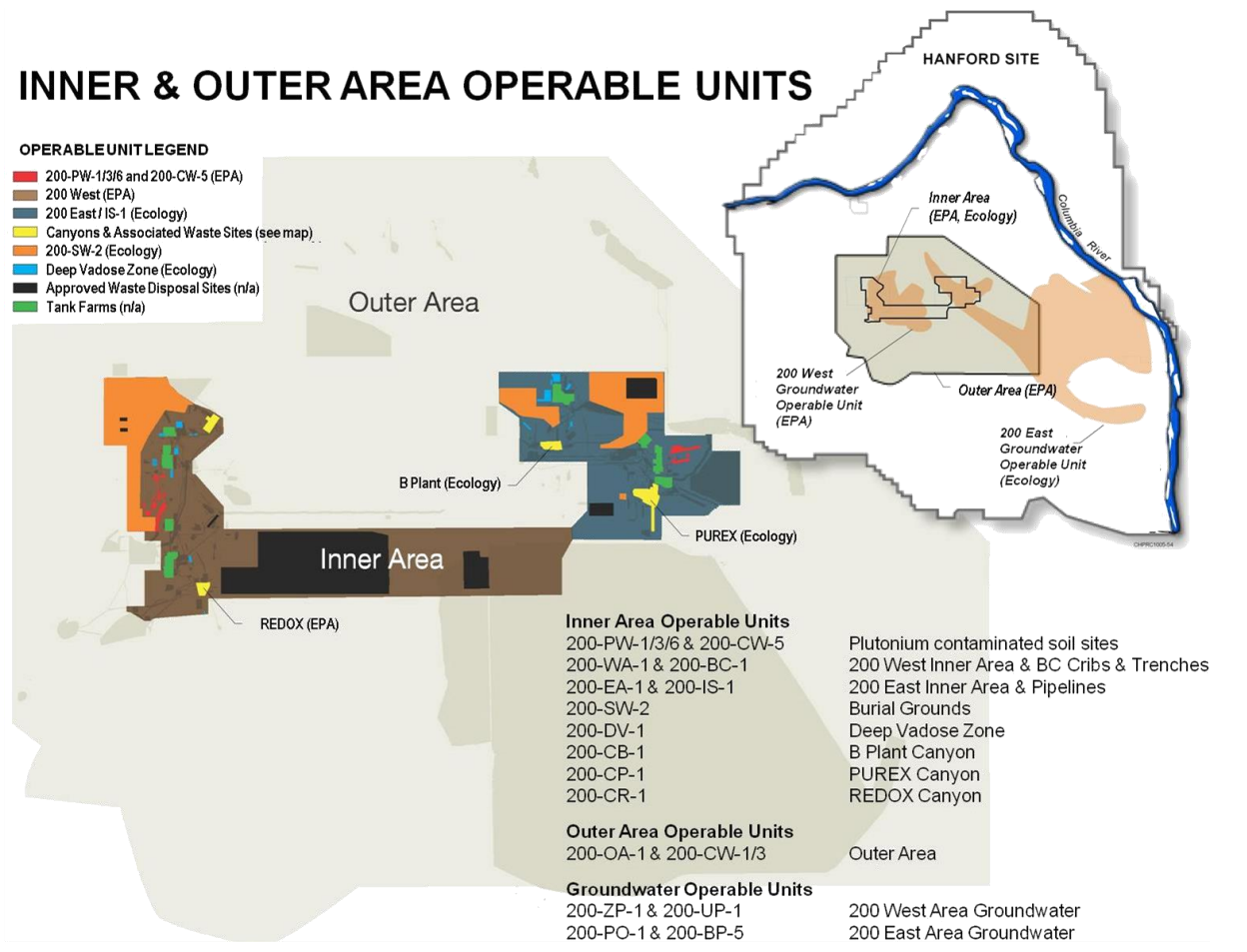
# Initiate Characterization of the Central Plateau 200 West Inner Area & BC Cribs & Trenches

*September 2018*

## INNER & OUTER AREA OPERABLE UNITS

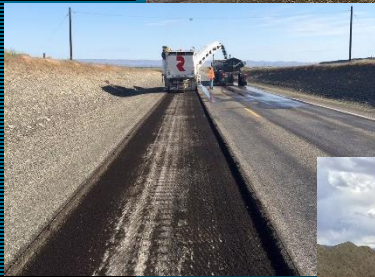
### OPERABLE UNIT LEGEND

- 200-PW-1/3/6 and 200-CW-5 (EPA)
- 200 West (EPA)
- 200 East / IS-1 (Ecology)
- Canyons & Associated Waste Sites (see map)
- 200-SW-2 (Ecology)
- Deep Vadose Zone (Ecology)
- Approved Waste Disposal Sites (n/a)
- Tank Farms (n/a)



# Key Hanford Infrastructure Projects Completed and Remaining Essential Infrastructure Projects Identified and Prioritized

***December 2019 (requested in HAB Advice #288)***



- Complete construction of 200E 13.8kV Electrical Distribution System modifications and upgrades
- Complete construction of 200W Transmission and Distribution System Refurbishments
- Complete construction of 230kV Transmission System Reconditioning and Sustainability Repairs (BPA partnership for Double Loop)
- Complete Electrical Transfer Trip upgrades
- Complete Transmission/Distribution Access Road upgrades
- Complete the natural gas pipeline EIS
- Complete NEPA, pilot test, and conceptual design of new Water Treatment Facility
- Complete NEPA, design, and begin construction for compliance driven cross connection control modifications on 200 Area raw water system
- Complete NEPA, design, and begin sewer system reconfiguration for a new Equalization Facility and system consolidation to lagoon
- Complete implementation and badging for HSPD-12
- Complete implementation of the new electronic medical record/EJTA
- Complete design and initiate construction of 400 Area fire house
- Complete 18 miles of Route 4S Chip Seal

# Hanford Site RCRA Permit (Rev. 9) Finalized and Signed

*December 2019*

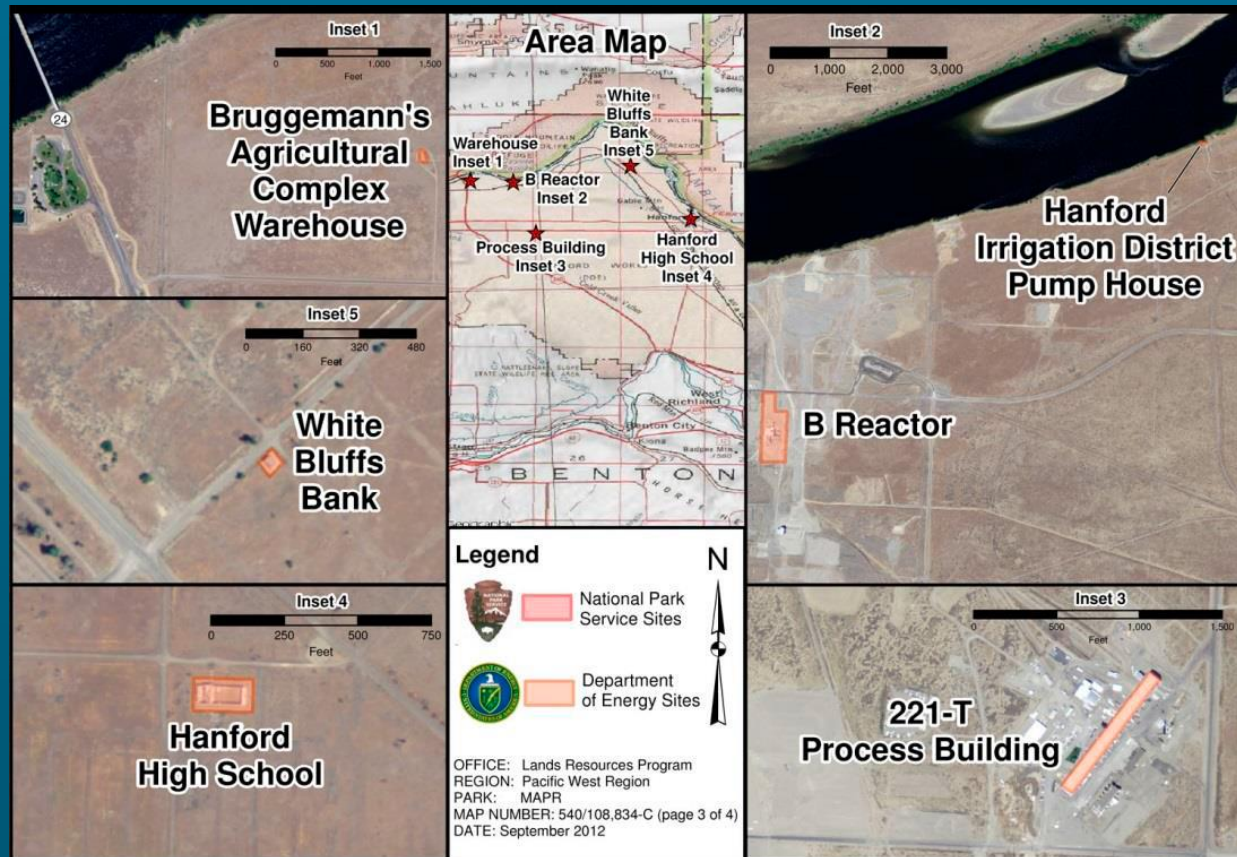




# Manhattan Project National Historical Park and Related Properties Transitioned from Hanford Nuclear Operations to Independent National Park Operations

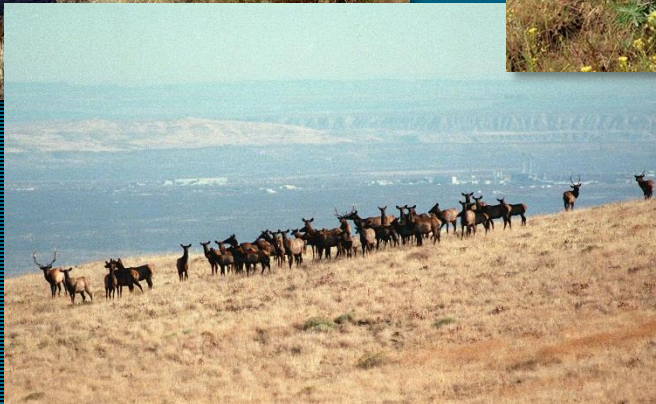
*Transition Plan Completed - March 2017*

*Transition Plan Implementation Begun - September 2018*



# Protocols Established and Implemented with US Fish and Wildlife, Tribes, Local Elected Officials and Other Key Stakeholders that Provide an Open and Transparent Forum for Access, Use and Management of Hanford Lands

*December 2017 (requested in HAB Advice #288)*





# All Signed Tribal Memoranda of Understanding/Memoranda of Agreement Commitments Completed






*December 2019*



# New Hanford Cleanup Contracts Awarded and Contract Transition Completed

**December 2019 (requested in HAB Advice #289)**

## Current Hanford Prime Contracts

<p><b>Tank Operations Contract TOC</b></p>  <p>Store, retrieve, and treat tank waste, store and dispose of treated waste, and close the Tank Farm waste management areas.</p> <p>Awarded in 2008 for 5 years plus 3 plus 2</p> <p>Total Contract Value: \$5.9B CPAF</p> <p><b>Expires 9/30/2018</b></p>	<p><b>Plateau Remediation Contract PRC</b></p>  <p>Facility and waste site cleanup, groundwater remediation, waste management</p> <p>Awarded in 2008 for 5 years plus 5</p> <p>Total Contract Value: \$5.8B CPAF</p> <p><b>Expires 9/30/2018</b></p>	<p><b>Mission Support Contract MSC</b></p>  <p>Cost-effective infrastructure and site services to support the cleanup mission</p> <p>Awarded in 2009 for 5 years plus 3 plus 2</p> <p>Total Contract Value: \$3.6B CPAF</p> <p><b>Expires 5/25/2019</b></p>
<p><b>222-S Laboratory Analysis &amp; Testing Services Contract</b></p> <p>Awarded in 2015 for 2 years plus 3 one year options</p> <p>Total Contract Value: \$44.5M</p> <p>Hybrid contract (FFP with award fee, Labor Hour Provision, CR)</p> <p><b>Expires 9/21/2020</b></p> 	<p><b>Occupational Medical Services Contract - HPMC</b></p> <p>Awarded in 2012 for 2 years plus 4 one year options</p> <p>Total Contract Value: \$100.2M</p> <p>Hybrid contract (FFP with award fee, CR, and IDIQ)</p> <p><b>Expires 9/30/2018</b></p> 	

Notes: 1. River Corridor Closure Contract (CPIF) ends on September 30, 2016  
2. Excludes Waste Treatment Plant Construction/Commissioning Contract (Bechtel National)

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Source Selection Information – See FAR 2.101 and 3.104



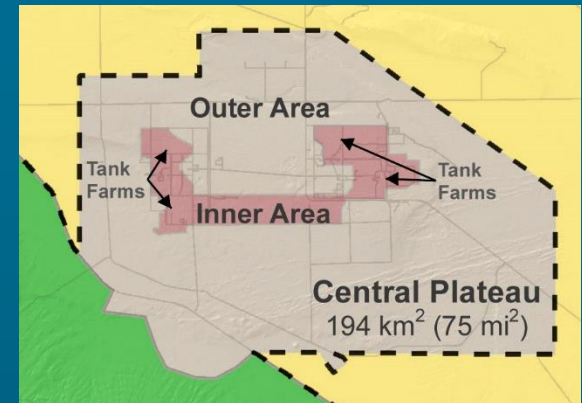
# Working with the U.S. Department of Justice to Reduce the U.S. Natural Resource Damages Liability by Initiating Partial Settlement(s) for Significant Hanford Natural Resources, such as Groundwater

*October 2019*



# Improve Collaboration, Coordination and Communications between the Richland Operations Office and Office of River Protection

- **RL/ORP co-location - 2016**
- **Hanford 5-Year Succession Plan - 2016/2017**
- **Hanford Integrated Priority List (DFLAW 2022 focused) - 2017**
- **Consolidated Hanford systems, processes, and procedures - 2018**
- **Hanford contracts awarded and transition initiated - 2019**
- **Integrated Hanford operations - September 2019**

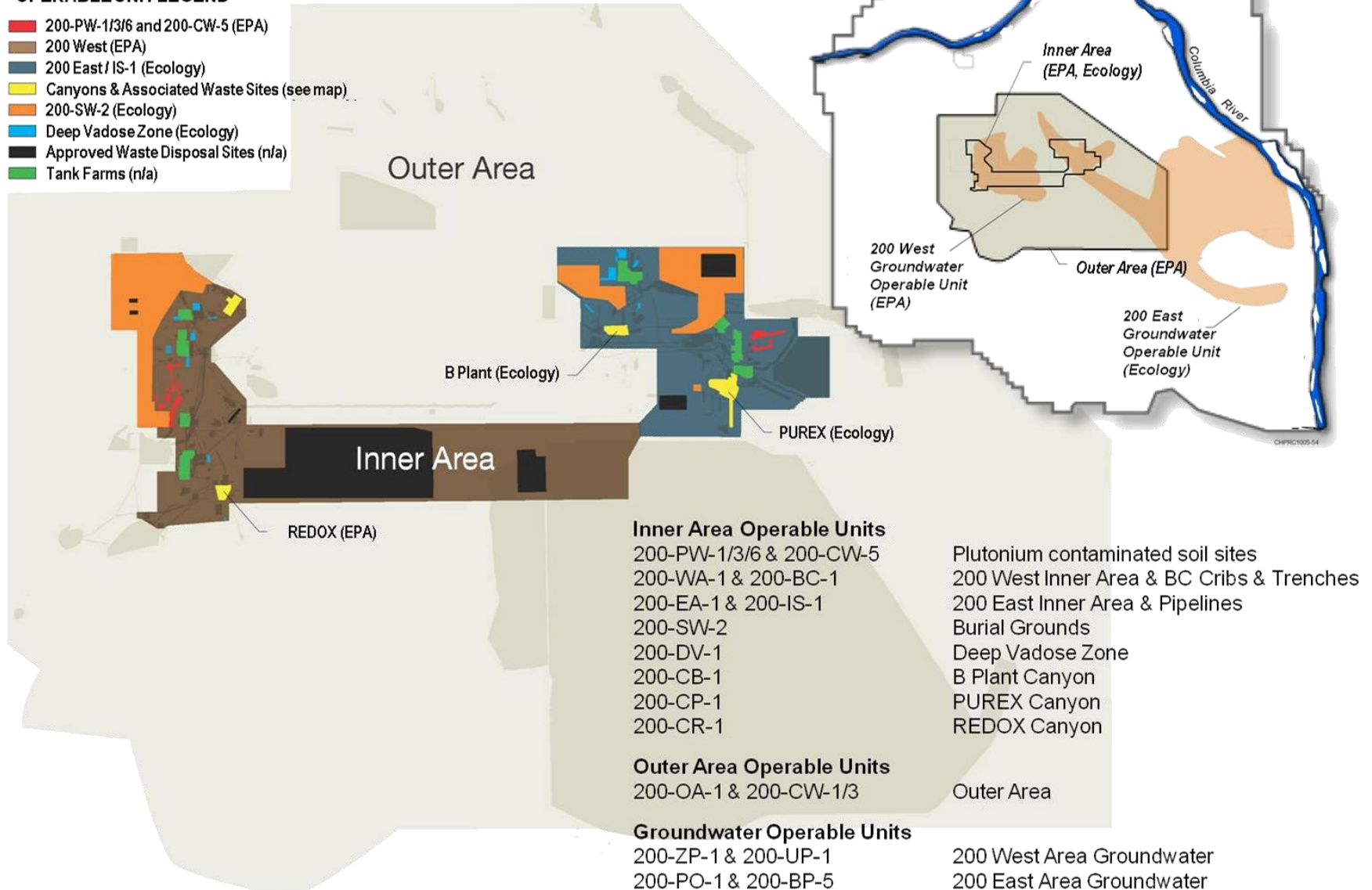




# INNER & OUTER AREA OPERABLE UNITS

## OPERABLE UNIT LEGEND

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# Thank you for your input!

## HAB Advice Received This Year

- #286 – Transportation Infrastructure Updates  
Safety Considerations**
- #287 – Central Plateau Milestone Series Change  
Package**
- #288 – FY 2017 Budget and FY 2018 Input Request**
- #289 – Master Acquisition Plan**
- #290 – Proposed Plan for Remediation of the 100-DR-1,  
100-DR-2, 100-HR-1, 100-HR-2, and 100-HR-3  
Operable Units**